

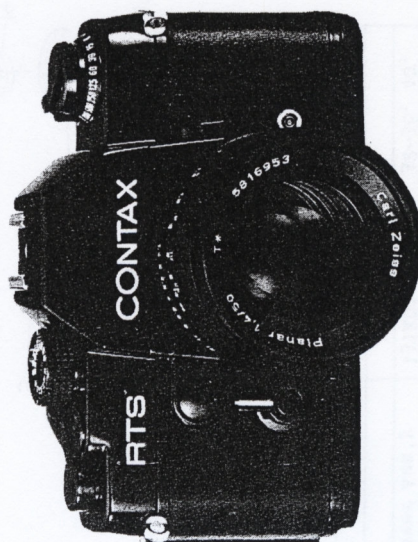
CONTAX RTS

REPAIR MANUAL

CONTAX RTS

CONTAX RTS BODY

ASSEMBLING CHART



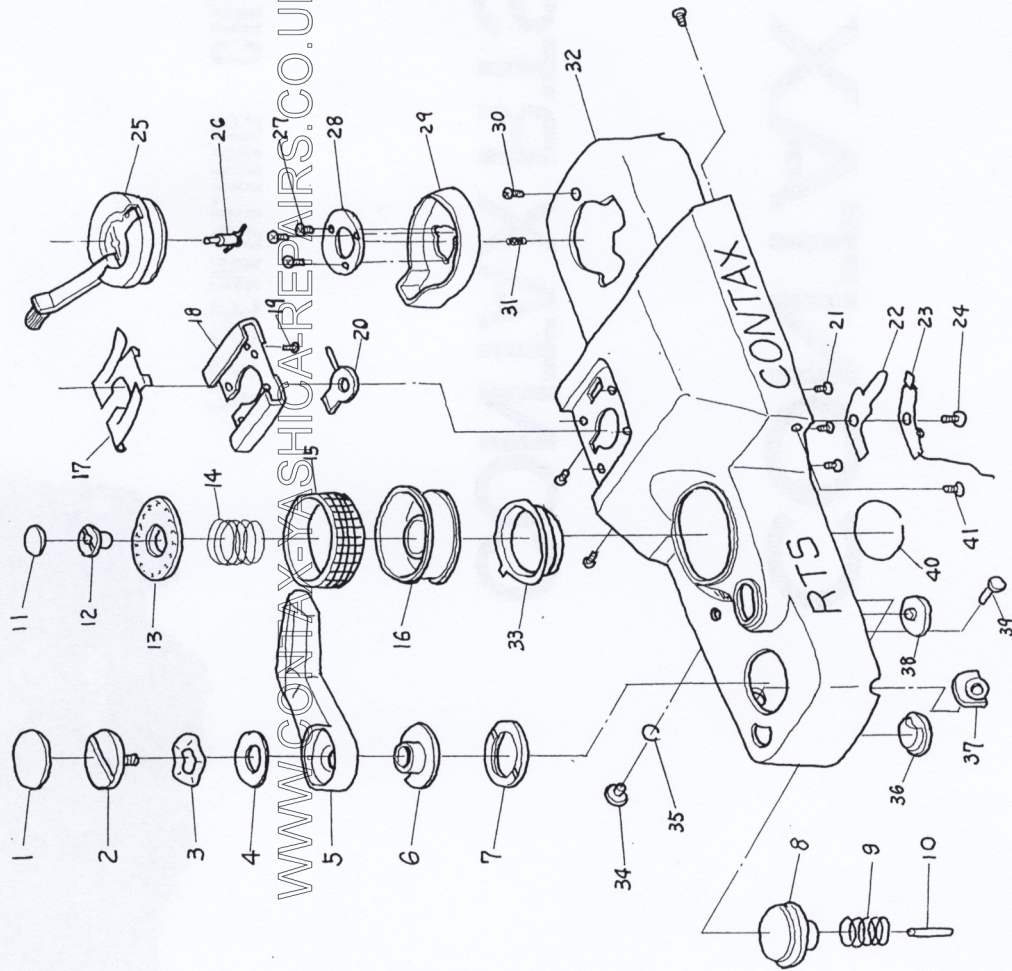
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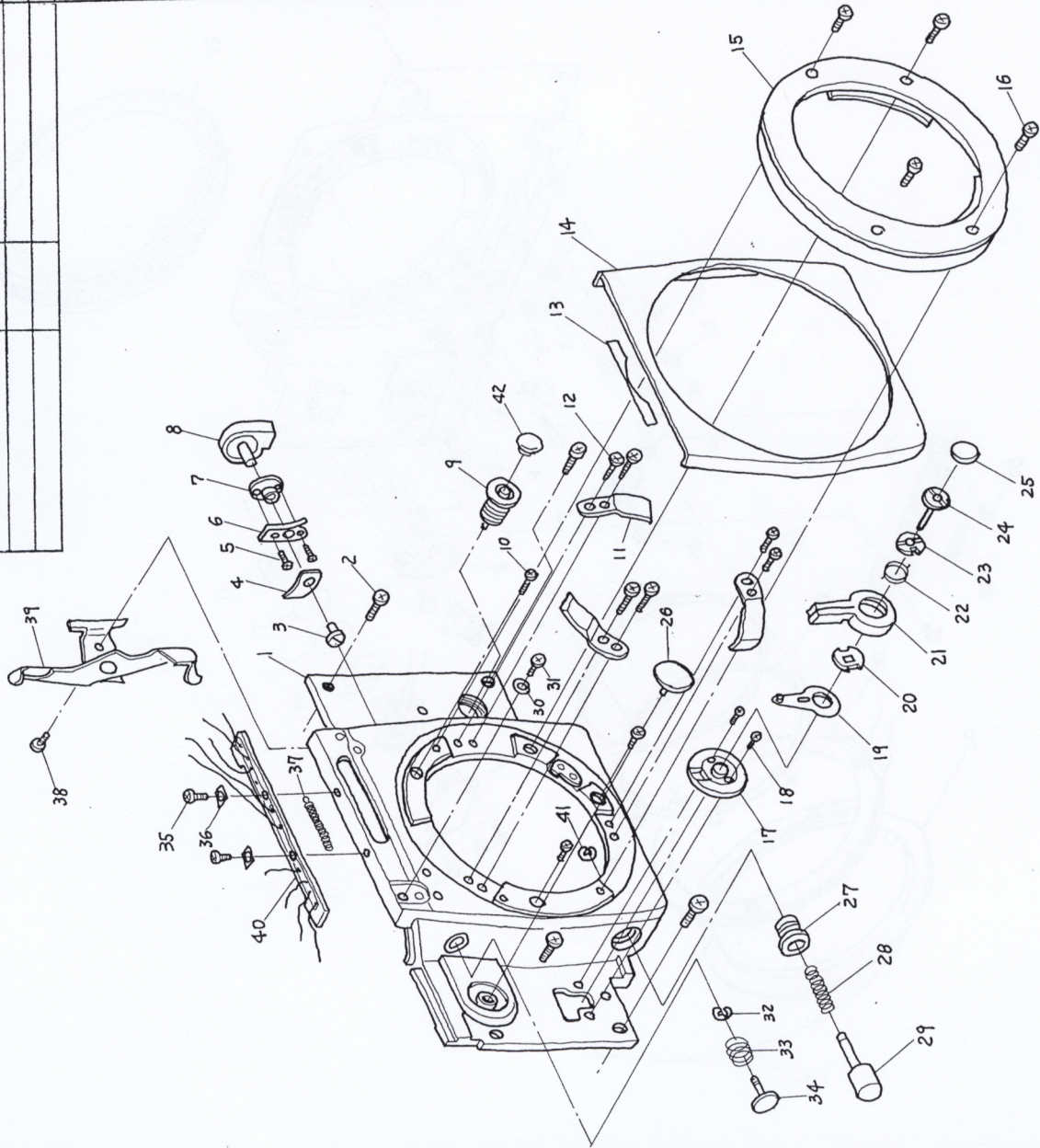
OTHER ASSEMBLY PARTS	ORDER NO.	DESCRIPTION (FIG. NO.)
ASA Dial Ass'y	131B08	15, 16,
Top Cover Ass'y	131K01	17~24, 32~38, 40,



PARTS NO	DESCRIPTION	QUANTITY
1 131607	Winding Lever Dress Plate	1
2 131606	Winding Lever S.S.	1
3 131604	Friction Spring	1
4 131605	Friction Spring Washer	1
5 131001	Winding Lever Ass'y	1
6 131603	Winding Lever Base	1
7 131161	Top Cover Nut	1
8 131167	Release Button	1
9 131422	Release Spring	1
10 131421	Release Shaft	1
11 131188	ASA Name Plate Dress Plate	1
12 131189	ASA Name Plate S.S.	1
13 131187	ASA Name Plate	1
14 131190	ASA Dial Spring	1
15 131184	ASA Dial Cover	1
16 ★	ASA Dial Sub Ass'y	1
17 131178	Shoe Dress Plate	1
18 131169	Accessory Shoe	1
19 131176	Shoe Contact Plate Pin	1
20 131K02	Shoe Contact Ass'y	1
21 61911824	Accessory Shoe S.S.	3
22 131174	Shoe Insulation Plate	1
23 131171	Shoe Contact Plate (1)	1
24 131177	Shoe Contact Plate S.S.	1
25 131D01	Rewind Knob Ass'y	1
26 131D02	Rewind Knob Clutch (2) Ass'y	1
27 61814029	Shutter Dial S.S.	3
28 131678	Rewind Knob Guide	1
29 131A05	Shutter Dial Ass'y	1
30 61812024	Top Cover S.S.	1
31 131668	Clutch Spring	1
32 ★	Top Cover	1
33 131191	Correction Indicator Needle	1
34 131165	B.C. Dress Ring	1
35 131179	B.C. Dress Ring Holder	1
36 131162	Counter Window	1
37 131164	Release Socket Dress Ring	1
38 131163	Checker Lamp Window	1
39 131166	B.C. Button	1
40 131192	Correction Indicator Needle Holder	1
41 131391	Top Cover S.S.	4

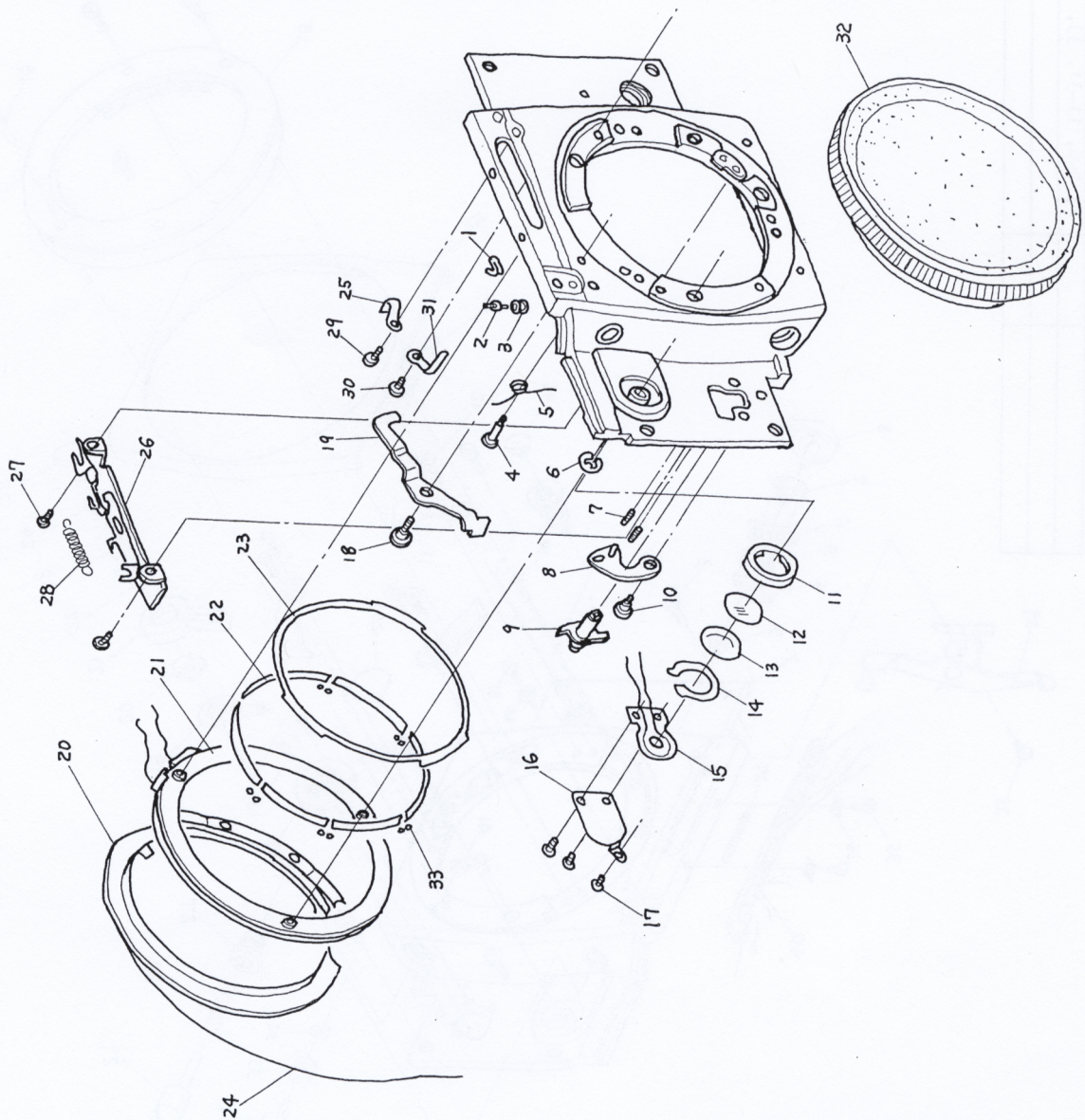
NOTE : (Parts with marked "★" are not available)

OTHER ASSEMBLY PARTS	ORDER NO.	DESCRIPTION (FIG. NO.)	PARTS NO	DESCRIPTION	QUANTITY
Mount Base Ass'y	131H01	P2 1, 3~16, 26~41, P3 1~6, 11~31, 33,	1	Mount Base	1
			2	Mount Base S.S.	4
			3	Mirror-up Cam S.S.	1
			4	Mirror-up Cam	1
			5	Mirror-up Knob Holder S.S.	2
			6	Mirror-up Knob Spring	1
			7	Mirror-up Knob Holder	1
			8	Mirror-up Knob	1
			9	Synchro Terminal Ass'y	1
			10	F. Stop Resistor S.S.	3
			11	Mount Spring	3
			12	Mount Spring S.S.	6
			13	Front Cover Washer	1
			14	Front Cover	1
			15	Lens Mount	1
			16	Lens Mount S.S.	4
			17	Self-timer Adjusting Shaft Holder	1
			18	Self-timer Adjusting Shaft Holder S.S.	2
			19	Start Lever Ass'y	1
			20	Self-timer Lever Base	1
			21	Self-timer Lever	1
			22	Self-timer Lever Spring	1
			23	Self-timer Lever Collar	1
			24	Self-timer Lever Screw	1
			25	Self-timer Lever Dress Ring	1
			26	Checker Button	1
			27	Diaphragm Button Holder	1
			28	Diaphragm Button Spring	1
			29	Diaphragm Button Ass'y	1
			30	Connecting Lace Washer	1
			31	Connecting Lace S.S.	1
			32	Snap Ring (E-12)	1
			33	Lens Lock Button Spring	1
			34	Lens Lock Button	1
			35	Mount Base Circuit Plate S.S.	2
			36	Insulation Washer	2
			37	F Stop Resistor Spring	1
			38	Diaphragm Lock (3) Ass'y S.S.	1
			39	Diaphragm Lock (3) Ass'y	1
			40	Mount Base Circuit Plate	1
			41	Snap Ring (E-15)	1
			42	Synchro Cap	1



NOTE : (Parts with marked "★" are not available)

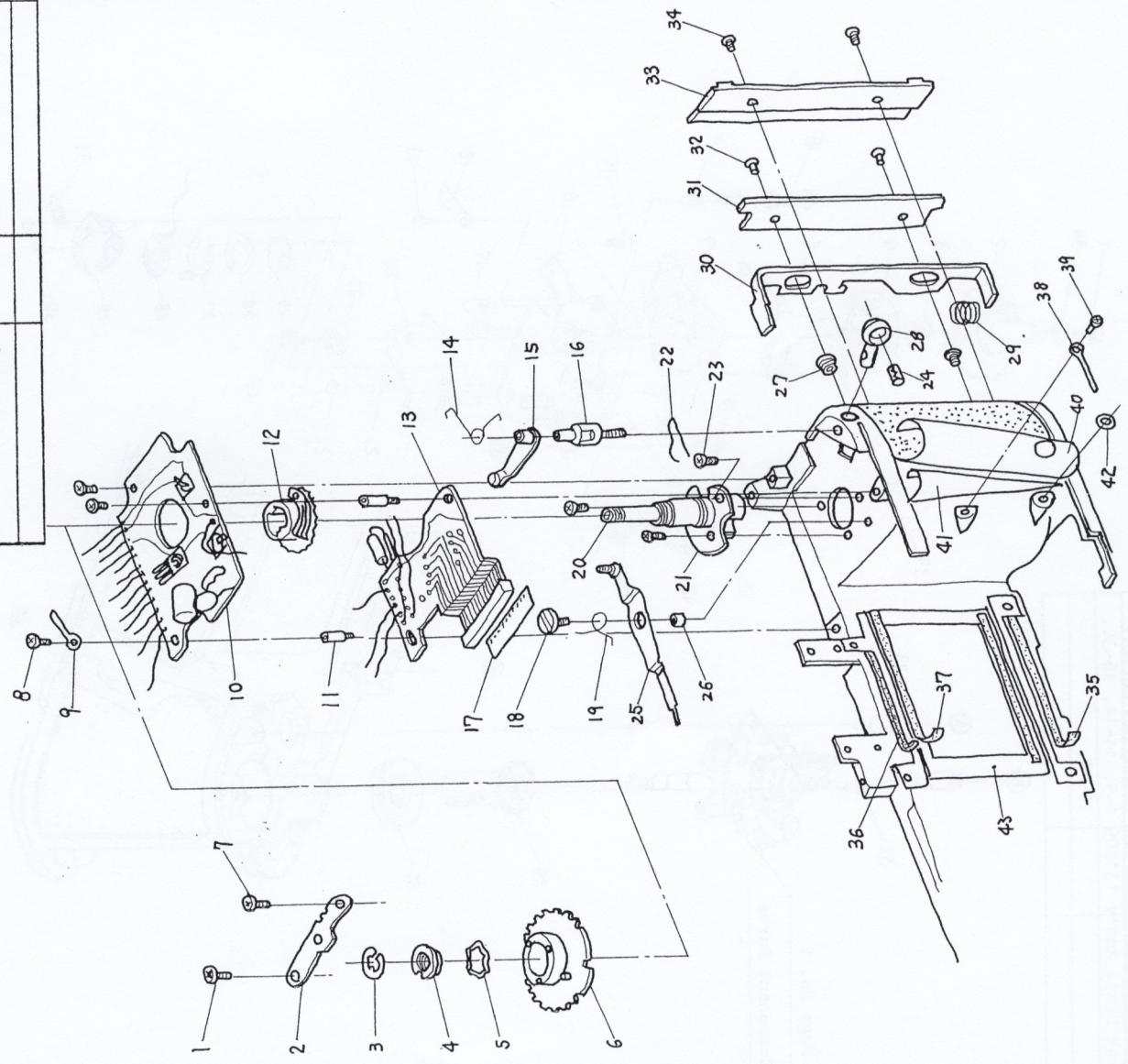
PARTS NO.	DESCRIPTION	QUANTITY
1 131824	Roller Shaft Hook	1
2 131825	Roller Shaft (I)	1
3 131826	Roller	1
4 131822	Lock Lever Spring Shaft	1
5 131823	Lens Lock Spring	1
6 66102025	Snap Ring (E-20)	1
7 61501624	Diaphragm Button S.S.	2
8 131A07	Idle Lever Ass'y	1
9 131A08	Self-timer Charge Plate Ass'y	1
10 131383	Idle Lever Shaft	1
11 131813	Check Insulation Ring	1
12 131814	Check Insulation Plate	1
13 819138	Release Contact Plate	1
14 131815	Check Switch Washer	1
15 131485	Speed Check Base Plate	1
16 131816	Check Switch Set Plate	1
17 61812824	Check Switch Set Plate S.S.	3
18 131821	Lock Lever Shaft	1
19 131820	Lens Lock Lever	1
20 131H04	F Stop Connecting Ring Ass'y	1
21 131H05	F Stop Resistor Ring Ass'y	1
22 128173	Spacer Ring	6
23 131841	F Stop Resistor Washer	1
24 131837	F Stop Connecting Lace	1
25 110928	Lead Wire Holder	1
26 131H06	Diaphragm Base Plate Ass'y	1
27 61913024	Diaphragm Base Plate S.S.	2
28 131797	Diaphragm Lock Spring	1
29 61912024	Lead Wire Holder S.S.	1
30 61912024	Lead Wire Holder S.S.	1
31 131830	Mount Base Wire Holder	1
32 128118	Body Cap	1
33 66701220	Steel Ball	12



NOTE : (Parts with marked "★" are not available)

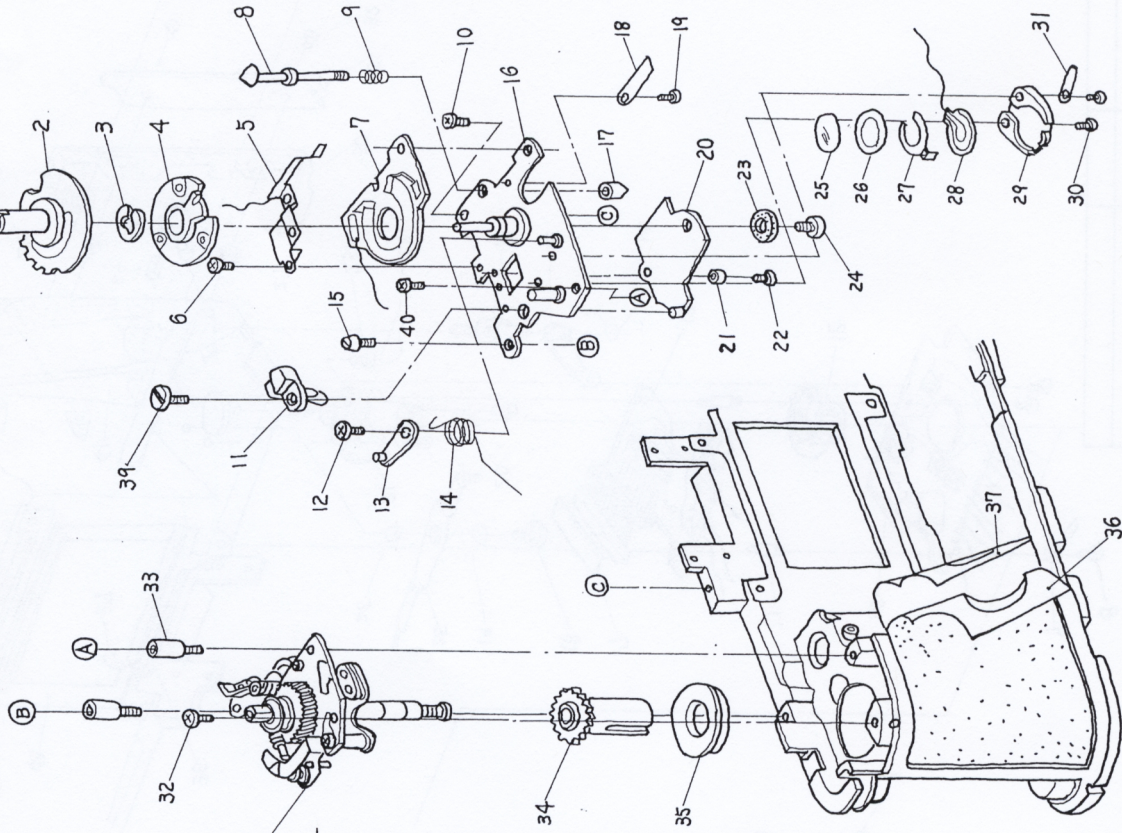
OTHER ASSEMBLY PARTS		ORDER NO.	DESCRIPTION (FIG. NO.)
Indicator Amplifier Assy		131B04	13, 17,

PARTS NO	DESCRIPTION	QUANTITY
1 63814024	Top Cover Fixing Plate S.S.	1
2 131114	Top Cover Fixing Plate	1
3 66103025	Snap Ring (E-30)	1
4 131676	Rewind Shaft Holder Nut	1
5 131677	Rewind Shaft Holder Washer	1
6 131A09	Shutter Click Plate Ass'y	1
7 61803024	Top Cover Fixing Plate S.S.	1
8 61912524	Switching Amplifier S.S.	3
9 110928	Lead Wire Holder	1
10 131B02	Switching Amplifier Base Ass'y	1
11 131432	Base Post	2
12 131A10	Indicator Needle Cam Ass'y	1
13 131B03	Indicator Needle Base Ass'y	1
14 131442	Shutter Click Spring	1
15 131A11	Shutter Click Lever Ass'y	1
16 131110	Strap Holder S.S.	1
17 131859	Speed Name Plate	1
18 131437	Shutter Indicator Needle Shaft	1
19 131438	Indicator Needle Spring	1
20 131658	Rewind Shaft	1
21 131657	Rewind Shaft Holder	1
22 309119	Rewind Shaft Spring	1
23 61822024	Rewind Shaft Holder S.S.	3
24 131122	Reinforcement Ring	2
25 131A12	Shutter Indicator Needle	1
26 131499	Shutter Indicator Plate Ass'y	1
27 131118	Back Cover Lock Plate Shaft	2
28 131109	Strap Holder	2
29 131121	Back Cover Lock Plate Shaft Spring	1
30 131120	Back Cover Lock Plate	1
31 131117	Back Cover Lock Plate Cover	1
32 61813029	Back Cover Lock Plate Cover S.S.	2
33 131116	Body Reinforcement Plate	1
34 61913024	Body Reinforcement Plate S.S.	2
35 131388	Shutter Base Moquette (Lower)	1
36 131387	Shutter Base Moquette (Upper)	1
37 131389	Shutter Light-proof Paper	2
38 110928	Lead Wire Holder	1
39 61912024	Lead Wire Holder S.S.	1
40 131103	Front Leather (Right)	1
41 131105	Leather Supporting Plate (Right)	1
42 60322110	Mount Base Washer	4
43 131159	Light-proof Plate	1



NOTE : (Parts with marked "★" are not available)

OTHER ASSEMBLY PARTS	ORDER NO.	DESCRIPTION (FIG. NO.)
ASA Base Plate Ass'y	131B09	1~9, 11~14, 16~30, 38~40,



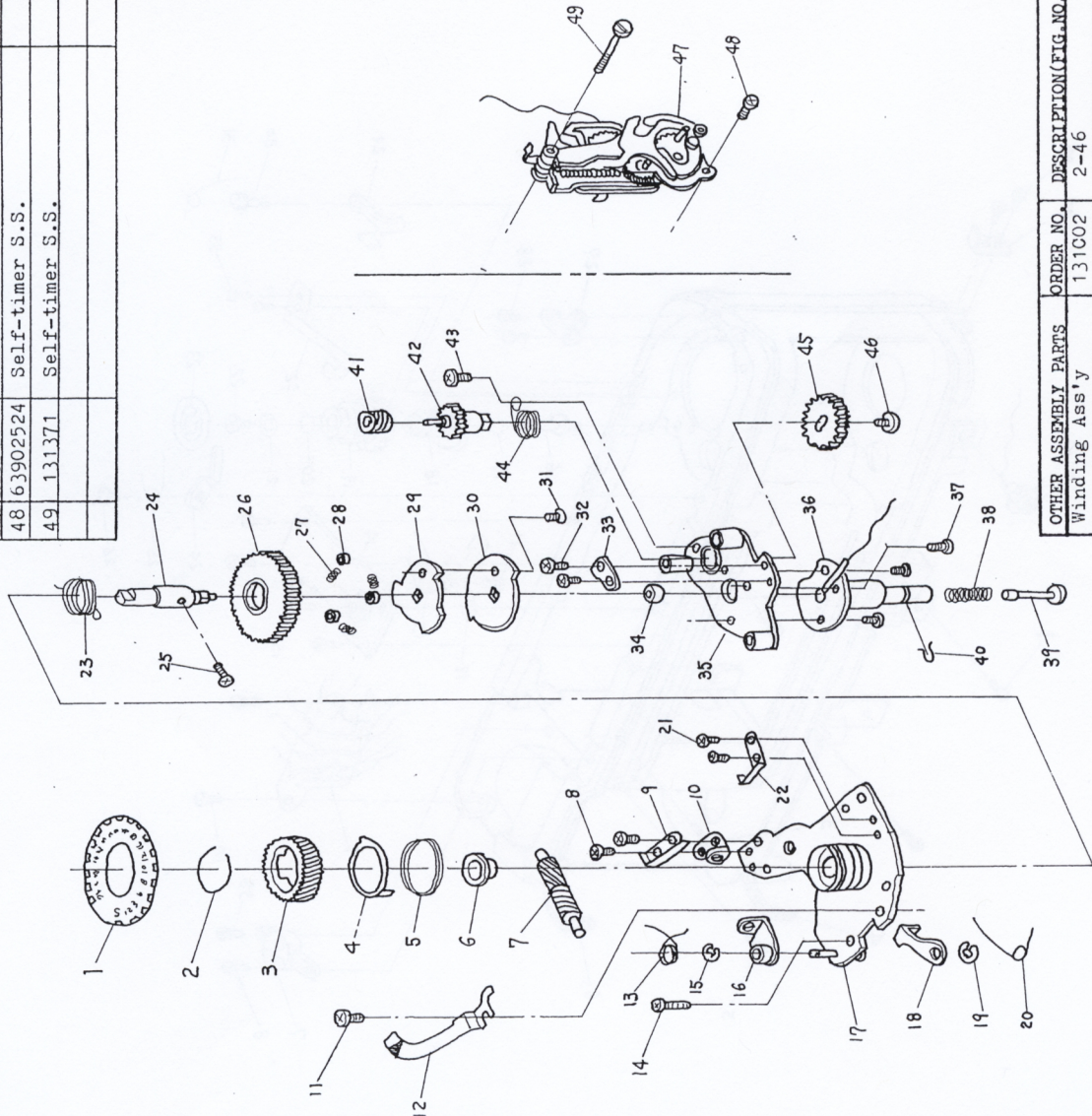
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For Component Parts

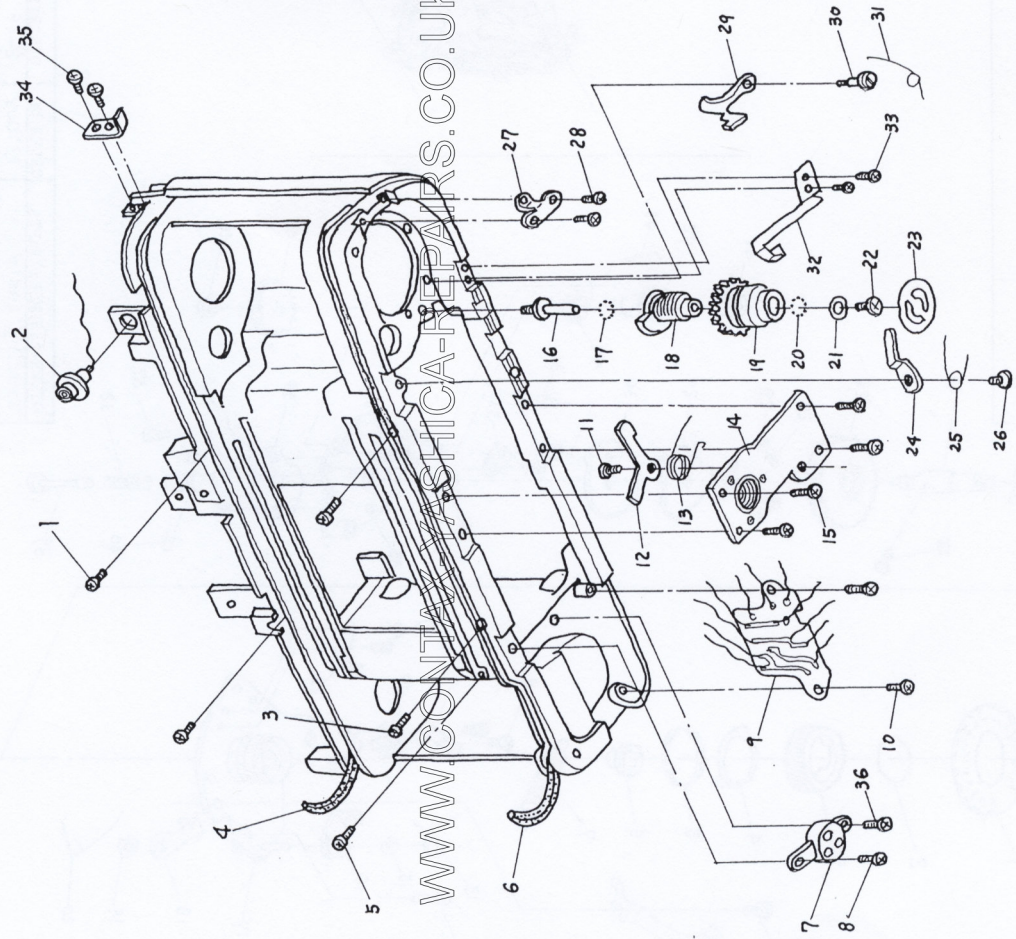
PARTS NO	DESCRIPTION	QUANTITY
1 131407	Correction Name Plate Shaft S.S.	1
2 131B11	Correction Name Plate Shaft Ass'y	1
3 66103024	Snap Ring E-30	1
4 131B10	ASA Slide Brush Ass'y	1
5 131505	ASA Intermediate Brush	1
6 63902224	ASA Intermediate Brush S.S.	1
7 131403	ASA Base	1
8 131409	Correction Mark Shaft (I)	1
9 131411	Correction Mark Spring	1
10 61913024	ASA Base Plate S.S.	1
11 131477	Battery Check Switch	1
12 312511	Lamp Holder S.S.	1
13 131B12	ASA Click Lever Ass'y	1
14 131416	ASA Click Spring	1
15 131424	ASA Base Plate S.S.	1
16 ★	ASA Base Plate Sub Ass'y	1
17 131410	Correction Mark Shaft (2)	1
18 110928	Lead Wire Holder	1
19 61912024	Lead Wire Holder S.S.	1
20 131514	Battery Check Amplifier	1
21 309823	Check Base Holder	1
22 61913024	ASA Base Plate S.S.	1
23 305534	Unit Base Packing	1
24 309804	Unit S.S. (I)	1
25 131419	Release Insulation Plate	1
26 819138	Release Contact Plate	1
27 131418	Release Washer	1
28 131483	Release Base	1
29 131417	Switch Holder	1
30 63913524	Switch Holder S.S.	2
31 110928	Lead Wire Holder	1
32 63927024	Strap Holder S.S.	1
33 131648	Rewind Base Plate S.S.	2
34 131644	F Gear	1
35 131643	Spool Shaft Holder	1
36 131102	Front Leather (Left)	1
37 131104	Leather Supporting Plate (Left)	1
38 60112610	Correction Name Plate Shaft Washer	1
39 63902024	Battery Check Switch S.S.	1
40 131423	ASA Click Spring Holder	1

NOTE : (Parts with marked "★" are not available)

PARTS NO.	DESCRIPTION	QUANTITY	PARTS NO.	DESCRIPTION	QUANTITY
46	131631 C Gear S.S.	1	1	131892 Counter Name Plate	1
47	131370 Self-timer	1	2	131895 Counter Gear Fixer	1
48	63902524 Self-timer S.S.	1	3	131889 Counter Gear (I)	1
49	131371 Self-timer S.S.	1	4	131894 Counter Spring Holder	1
			5	131893 Counter Spring	1
			6	131611 Winding Shaft Holder (2)	1
			7	131891 Counter Gear (3)	1
			8	61912224 Counter Gear Holder S.S.	2
			9	131896 Counter Gear Fixer Spring	1
			10	131882 Counter Gear Holder (1)	1
			11	63913524 Counter Indicator S.S.	1
			12	131898 Counter Indicator	1
			13	131888 Counter Set Spring	1
			14	61916024 Counter Set Spring S.S.	1
			15	66101225 Snap Rong E-12	1
			16	131E01 Counter Gear Holder (2) Ass'y	1
			17	★ Winding Base Plate (1) Sub Ass'y	1
			18	131886 Counter Release Lever	1
			19	66102025 Snap Ring E-20	1
			20	131887 Counter Release Spring	1
			21	61902024 Counter Stopper S.S.	2
			22	131897 Counter Stopper	1
			23	131617 Winding Spring	1
			24	131613 Winding Shaft	1
			25	61913024 Winding Spring S.S.	1
			26	131614 A Gear	1
			27	131610 Roller Holder Spring	3
			28	131615 Winding Roller	3
			29	170213 Winding Clutch Plate	1
			30	131616 Turn Limit Plate	1
			31	61812524 Turn Limit Plate S.S.	1
			32	61813024 Winding Stopper S.S.	2
			33	131623 Winding Stopper	1
			34	131612 Winding Shaft Holder (3)	1
			35	★ Winding Base Plate (2) Ass'y	1
			36	★ Battery Contact Sub Ass'y	1
			37	63912524 Battery Contact Frame S.S.	3
			38	131156 Battery Contact Spring	1
			39	131153 Battery Contact (2)	1
			40	131157 Battery Contact Fixer	1
			41	131890 Counter Gear (2)	1
			42	131620 B Gear	1
			43	131624 Kick Spring Shaft	1
			44	131622 Winding Kick Spring	1
			45	131621 C Gear	1



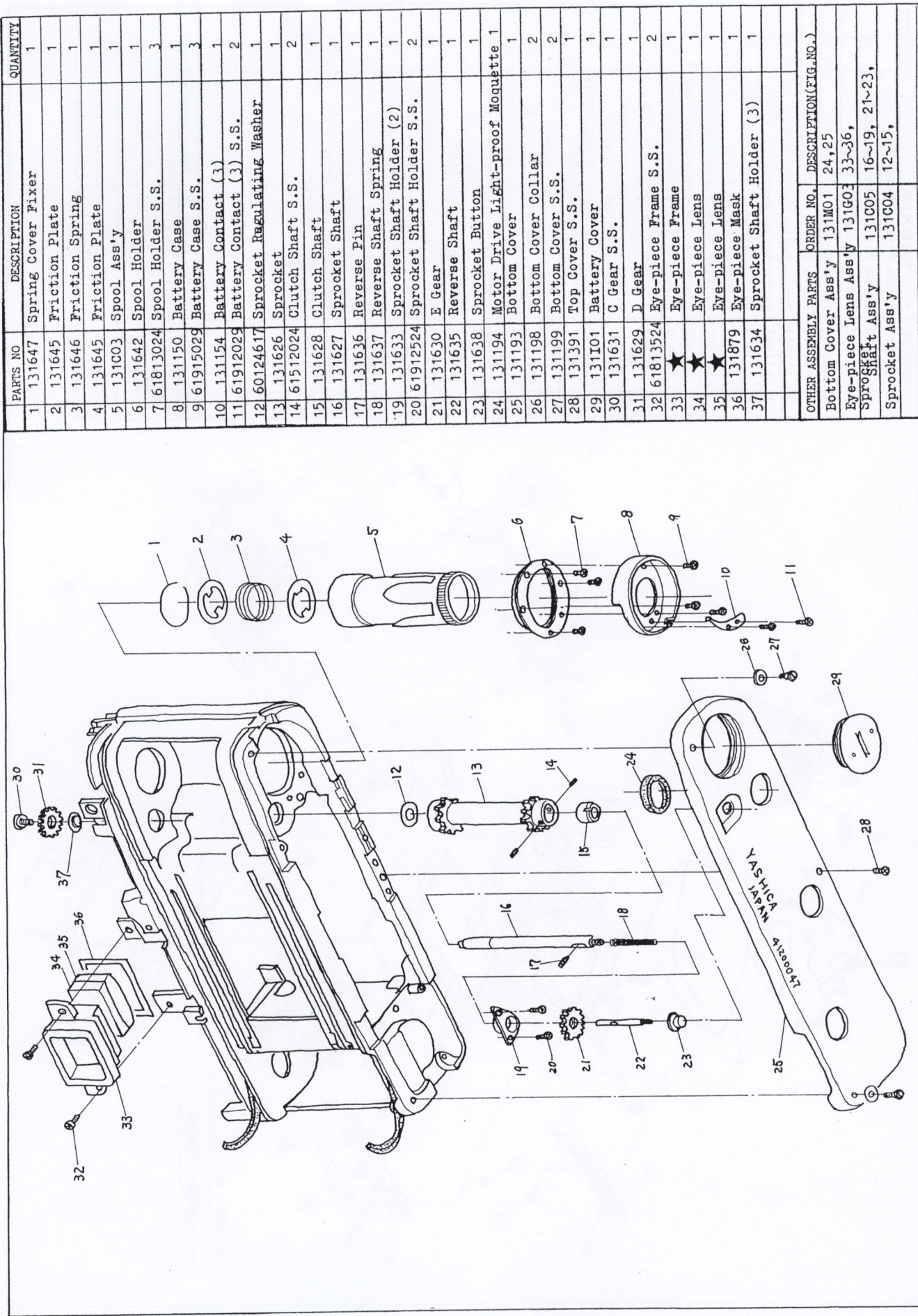
OTHER ASSEMBLY PARTS	ORDER NO.	DESCRIPTION (FIG. NO.)
Winding Ass'y	131C02	2-46
Battery Contact Frame Ass'y	131I02	36, 38-40,
A Gear Ass'y	131O09	23-31,



PARTS NO	DESCRIPTION	QUANTITY
1 61923024	Mirror Box S.S.	2
2 131F01	Release Socket Ass'y	1
3 61924024	Mirror Box S.S.	2
4 131106	Body Light-proof Moquette (Upper)	1
5 131113	Film Guide Pin	1
6 131107	Body Light-proof Moquette (Lower)	1
7 131008	Terminal Insulator Ass'y	1
8 61814024	Terminal Insulator S.S.	1
9 131A13	Diode Base Ass'y	1
10 61913024	Diode Base S.S.	2
11 131350	First Curtain Stop Lever S.S.	1
12 131348	First Curtain Stop Lever	1
13 131351	First Stop Lever Spring	1
14 ★	Tripod Socket Base Sub Ass'y	1
15 63824024	Tripod Socket S.S.	4
16 131682	Mirror Charge Cam Shaft	1
17 66701020	Steel Ball (1φ)	10
18 131680	Mirror Charge Cam	1
19 131681	Motor Drive Connecting Gear	1
20 66701020	Steel Ball (1φ)	10
21 131685	Mirror Charge Cam Washer	1
22 131683	Mirror Charge Shaft S.S.	1
23 131684	Motor Drive Light-proof Plate	1
24 131649	Reverse Lever	1
25 131651	Reverse Lever Spring	1
26 131650	Reverse Lever Shaft	1
27 131149	Hinge Shaft Holder (Lower)	1
28 61913024	Hinge Shaft Holder (Lower) S.S.	2
29 131007	Multi-exposure Lever (2) Ass'y	1
30 131655	Multi-exposure Lever Shaft (2)	1
31 131656	Multi-exposure Lever Spring	1
32 131652	Multi-exposure Lever (1)	1
33 61913024	Multi-exposure Lever (1) S.S.	2
34 131148	Hinge Shaft Holder (Upper)	1
35 61812524	Hinge Shaft Holder (Upper) S.S.	2
36 61912524	Terminal Insulator S.S.	1

OTHER ASSEMBLY PARTS	ORDER NO.	DESCRIPTION (FIG. NO.)
Tripod Socket Ass'y	131J01	11~14,
Mirror Charge Cam Ass'y	131C06	16~22,

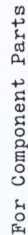
NOTE : (Parts with marked "★" are not available)



PARTS NO	DESCRIPTION	QUANTITY
1	131647 Spring Cover Fixer	1
2	131645 Friction Plate	1
3	131646 Friction Spring	1
4	131645 Friction Plate	1
5	131C03 Spool Ass'y	1
6	131642 Spool Holder	1
7	61813024 Spool Holder S.S.	3
8	131150 Battery Case	1
9	61915029 Battery Case S.S.	3
10	131154 Battery Contact (3)	1
11	61912029 Battery Contact (3) S.S.	2
12	60124617 Sprocket Regulating Washer	1
13	131626 Sprocket	1
14	61512024 Clutch Shaft S.S.	2
15	131628 Clutch Shaft	1
16	131627 Sprocket Shaft	1
17	131636 Reverse Pin	1
18	131637 Reverse Shaft Spring	1
19	131633 Sprocket Shaft Holder (2)	1
20	61912524 Sprocket Shaft Holder S.S.	2
21	131630 E Gear	1
22	131635 Reverse Shaft	1
23	131638 Sprocket Button	1
24	131194 Motor Drive Light-proof Moquette	1
25	131193 Bottom Cover	1
26	131198 Bottom Cover Collar	2
27	131199 Bottom Cover S.S.	2
28	131391 Top Cover S.S.	1
29	131101 Battery Cover	1
30	131631 C Gear S.S.	1
31	131629 D Gear	1
32	61813524 Eye-piece Frame S.S.	2
33	★ Eye-piece Frame	1
34	★ Eye-piece Lens	1
35	★ Eye-piece Lens	1
36	131879 Eye-piece Mask	1
37	131634 Sprocket Shaft Holder (3)	1

OTHER ASSEMBLY PARTS	ORDER NO.	DESCRIPTION (FIG. NO.)
Bottom Cover Ass'y	131M01	24, 25
Eye-piece Lens Ass'y	131G03	33~36,
Sprocket Ass'y	131C05	16~19, 21~23,
Sprocket Ass'y	131C04	12~15,

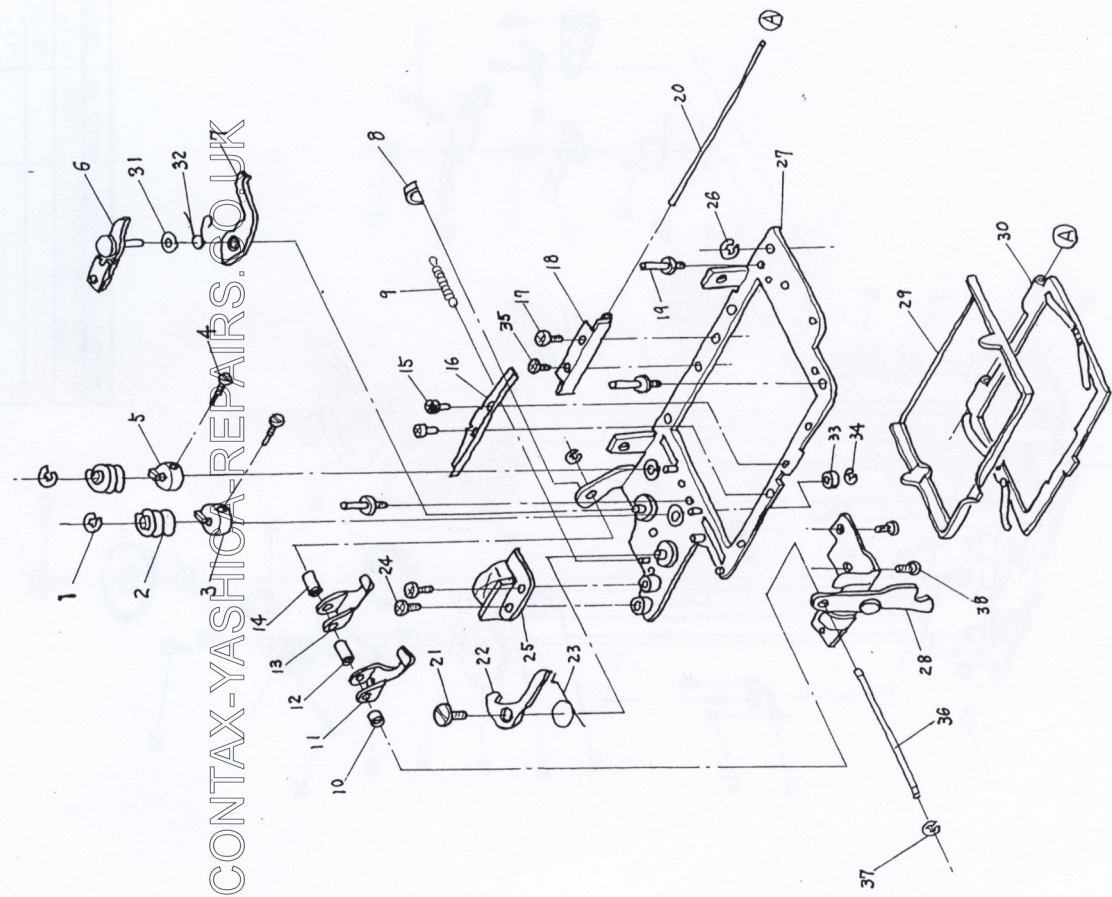
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Oper T STOP	131G06	17, 18
Plate Assy		

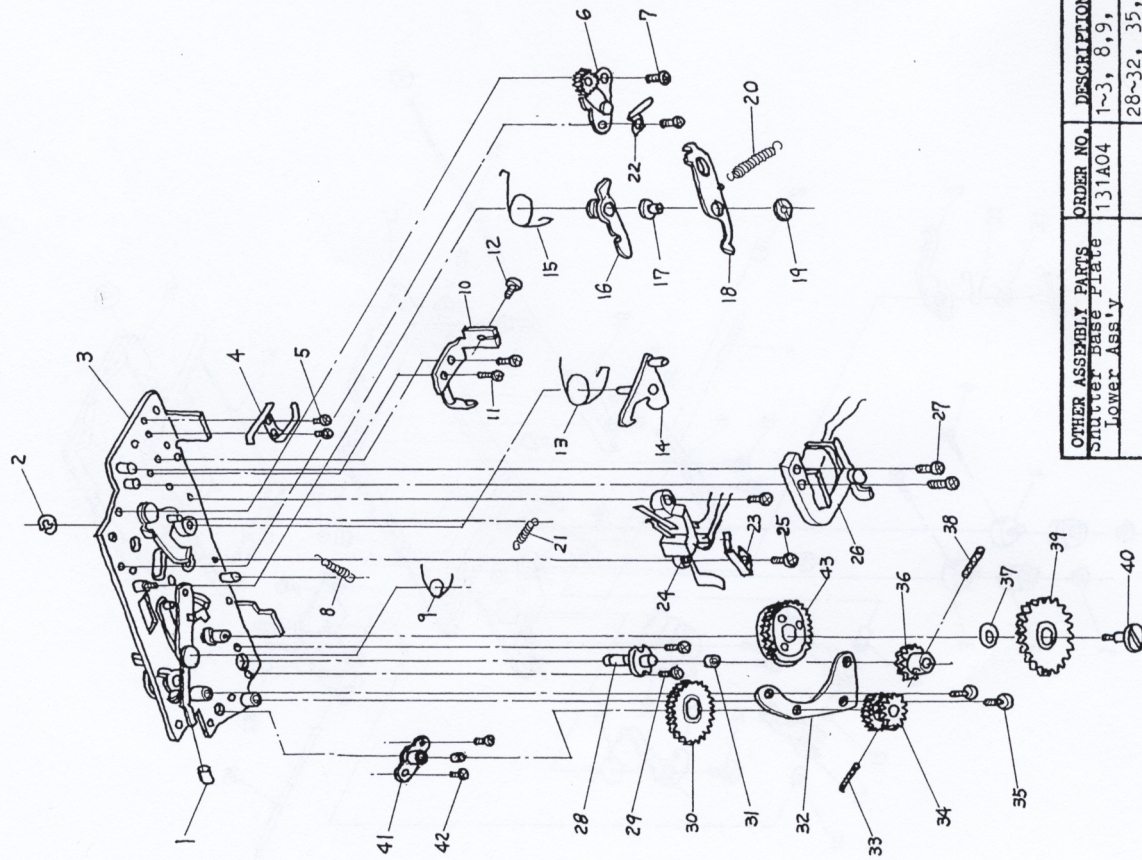
NOTE : (Parts with marked "★" are not available)

PARTS NO	DESCRIPTION	QUANTITY
1 66101525	Snap Ring E-15	2
2 131323	Turn Limit Guide	2
3 131320	First Curtain Hook Circle Plate	1
4 131322	Hook Circle Plate S.S.	2
5 131321	Second Curtain Hook Circle Plate	1
6 131A14	Magnetic Hook Lever Ass'y	1
7 131F03	Second Curtain Fixing Hook Ass'y	1
8 131481	Battery Check Insulation Collar	1
9 131217	Second Curtain Hook Lever Spring	1
10 131233	Limit Lever Collar (2)	1
11 131229	First Curtain Limit Lever	1
12 131232	Limit Lever Collar (1)	1
13 131018	Second Limit Lever Ass'y	1
14 131232	Limit Lever Collar (1)	1
15 61901824	Penta Prism Holder Light-proof Plate S.S.	2
16 131786	Penta Prism Holder Light-proof Plate	1
17 61901824	Focusing Glass Holder S.S.	1
18 ★	Focusing Glass Holder Hinge	1
19 131862	Focusing Adjusting S.S.	3
20 ★	Focusing Glass Holder Hinge Shaft	1
21 131207	First Curtain Hook S.S.	1
22 131F02	First Curtain Fixing Hook Ass'y	1
23 131208	First Curtain Hook Spring	1
24 131235	Magnet S.S.	2
25 131527	Shutter Magnet	1
26 66101525	Snap Ring E-15	1
27 ★	Shutter Base Plate Sub Ass'y	1
28 131A15	Shutter Sub Base Plate Ass'y	1
29 ★	Focusing Glass Frame	1
30 ★	Focusing Glass Holder Sub Ass'y	1
31 131360	Magnetic Hook Lever Washer	1
32 131239	Magnetic Hook Lever Spring	1
33 131319	Winding Side Roller	1
34 66103025	Snap Ring E-30	1
35 61801824	Focusing Glass Holder S.S. (Left)	1
36 131231	Limit Lever Shaft	1
37 66101225	Snap Ring E-12	2
38 61812024	Shutter Sub Plate S.S.	2



OTHER ASSEMBLY PARTS	ORDER NO.	DESCRIPTION (FIG. NO.)
Focusing Glass Holder Ass'y	131G07	18, 20, 29, 30,
Shutter Base Plate (Upper) Ass'y	131A03	6~14, 21~25, 27, 28,
		31~34, 36~38,

NOTE : (Parts with marked "★" are not available)

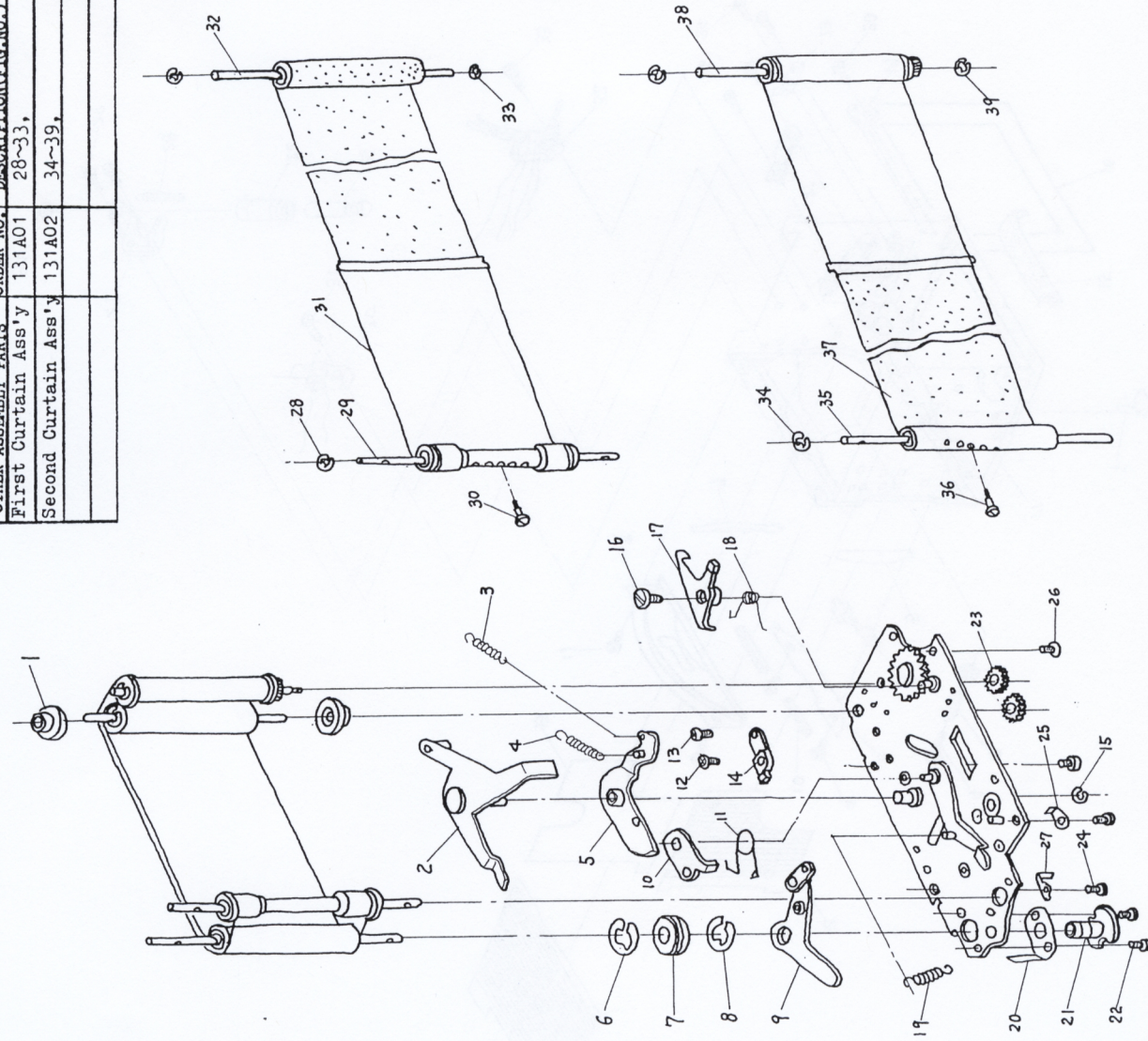


OTHER ASSEMBLY PARTS	ORDER NO.	DESCRIPTION (FIG. NO.)
SHUTTER BASE PLATE	131A04	1-3, 8, 9, 13-16, 21
LOWER ASS'y		28-32, 35, 43, P12, 2-22,

PARTS NO	DESCRIPTION	QUANTITY
1 131588	Insulation Tube (3)	1
2 66101525	Shap Ring E-15	1
3 ★	Shutter Base Plate Lower Sub Ass'y	1
4 131347	Ratchet Wheel Spring	1
5 61901424	Ratchet Wheel Spring S.S.	2
6 131299	Lag Governor	1
7 63901424	Lag Governor S.S.	2
8 131305	Stop Lever Spring (2)	1
9 131297	Stop Lever Spring (1)	1
10 131352	Adjusting Screw Holder	1
11 61911824	Adjusting Screw Holder S.S.	2
12 131353	Movable Plate Adjusting S.S.	1
13 131285	Release Lever (1) Spring	1
14 131A16	Release Lever (1) Ass'y	1
15 131294	Release Lever (3) Spring	1
16 131A17	Release Lever (3) Ass'y	1
17 131301	Lag Lever Shaft	1
18 131A18	Lag Lever Ass'y	1
19 131302	Lag Lever Nut	1
20 131303	Lag Lever Spring	1
21 131289	Release Lever (2) Spring	1
22 131357	Lag Lever Guide	1
23 131356	Release Lever (1) Plate Spring	1
24 131457	Electric Source Switch	1
25 61904024	Electric Source Switch S.S.	2
26 131527	Release Magnet Ass'y	1
27 61914024	Release Magnet S.S.	2
28 131310	Second Curtain Shaft	1
29 61912024	Second Curtain Shaft Lower Metal Holder Lower S.S.	2
30 131324	Shutter Idle Gear	1
31 131202	Shutter Metal	2
32 131334	Shutter Metal Fixer	1
33 66661630	Spring Pin #1X5	1
34 131336	First Curtain Winding Gear	1
35 63912024	Shutter Metal Fixer S.S.	2
36 131337	Second Curtain Winding Gear	1
37 131333	Sector Gear Washer	1
38 66661630	Spring Pin #1X5	1
39 131331	Double Winding Prevention Gear	1
40 131332	Double Winding Prevention Gear Shaft	1
41 131308	First Curtain Shaft	1
42 61911524	First Metal Holder Lower Metal Holder Lower S.S.	2
43 131A19	Sector Gear Ass'y	1

NOTE : (Parts with marked "★" are not available)

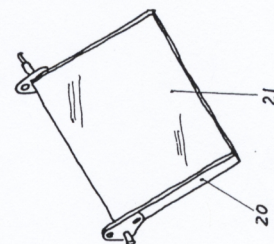
OTHER ASSEMBLY PARTS		ORDER NO.	DESCRIPTION (FIG. NO.)	PARTS NO.	DESCRIPTION	QUANTITY
First Curtain Ass'y		131A01	28-33,	1	131345 Spring Side Roller	2
Second Curtain Ass'y		131A02	34-39,	2	131G09 Mirror Driving Lever Ass'y	1
				3	131267 Mirror Restore Spring	1
				4	131266 Mirror-up Spring	1
				5	131G10 Mirror Charge Lever Ass'y	1
				6	66103025 Snap Ring E-30	1
				7	131319 Winding Side Roller	1
				8	66103025 Snap Ring E-30	1
				9	131G11 Charge Lever Ass'y	1
				10	131A20 Diaphragm Driving Lever Ass'y	1
				11	131255 Diaphragm Driving Lever Sp.	1
				12	61912524 Mirror Driving Lever Stopper S.S.	1
				13	131265 Mirror Restore Spring Holder	1
				14	131264 Mirror Driving Lever Stopper	1
				15	66101525 Snap Ring E-15	1
				16	131273 Mirror Down Lever S.S.	1
				17	131A21 Mirror Down Lever Ass'y	1
				18	131274 Mirror Down Lever Spring	1
				19	131251 Release Charge Lever Spring	1
				20	131309 Lace Guide Plate Lower	1
				21	131310 Second Curtain Shaft Metal Holder Lower	1
				22	61912024 Second Curtain Shaft Metal Holder Lower S.S.	2
				23	131346 Ratchet Wheel	2
				24	61913024 Shutter Base Plate Lower S.S.	3
				25	131791 Mirror Box Cord Holder (5)	1
				26	61813024 Shutter Base Plate Lower S.S.	1
				27	131472 X Contact (1)	1
				28	66101525 Snap Ring E-15	2
				29	131314 Shutter Shaft	1
				30	131316 First Curtain Drum S.S.	1
				31	★ Curtain Lace	2
				32	★ First Curtain Spring Shaft	1
				33	66101525 Snap Ring E-15	1
				34	66101525 Snap Ring E-15	2
				35	131314 Shutter Shaft	1
				36	131318 Second Curtain Drum S.S.	1
				37	★ Shutter Curtain	2
				38	★ Second Curtain Spring Shaft	1
				39	66101525 Snap Ring E-15	1





OTHER ASSEMBLY PARTS	ORDER NO.	DESCRIPTION (FIG. NO.)
Mirror Box Assy	131G01	1~17, 19~29,
		32~34,
		P14 11~24,

NOTE : (Parts with marked "★" are not Available)



OTHER ASSEMBLY PARTS	ORDER NO.	DESCRIPTION (FIG. NO.)
Back Cover Ass'y	131L01	1~9,

No. 14

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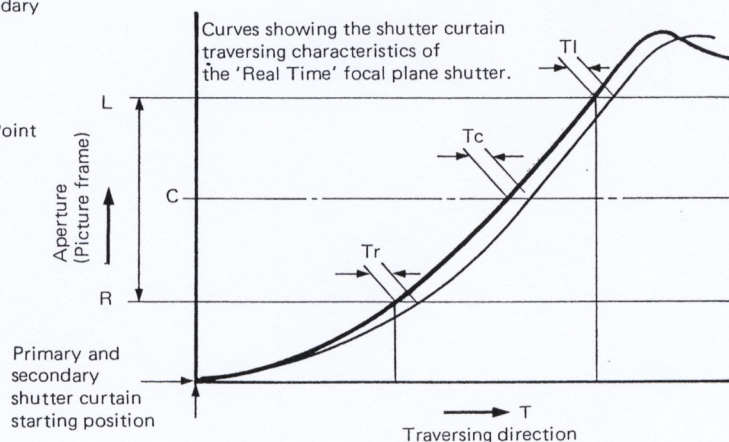
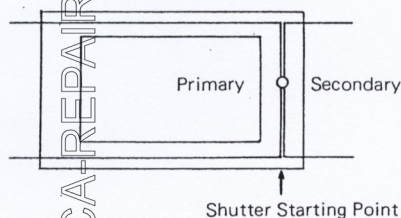
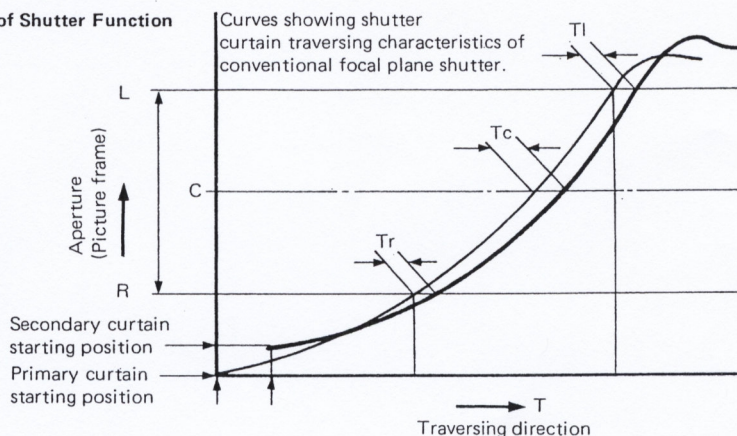
SHUTTER MECHANISM (FOCAL PLANE)

The primary and secondary curtain start from the same starting point. Whereas, with conventional focal plane shutters other than the CONTAX RTS shutter the primary and secondary curtains are in the capped (overlapped) state at the starting point. Therefore, The starting point of the secondary curtain is 3–4mm inside (towards the aperture) and further away from the primary curtain. The traversing speed of the primary and secondary curtains are measured at a width of 32mm (2mm respectively from left and right inner side of 36mm picture plane). The respective curtains traversing at an uniform speed of 12 m/sec., and the width of the slit at 1/2000 sec. would be 1.333...mm and this width should be maintained for the complete exposure.

The purpose for the primary and secondary curtains starting from the same point in the CONTAX RTS is to provide stable and accurate even exposure at the high speed of 1/2000 sec.

$$V = ST \quad S = \frac{V}{T} = \frac{2.666}{2.000} = 1.333... \quad (V = \text{Curtain Speed} \quad T = \text{Shutter Speed} \quad S = \text{Slit width}).$$

Comparison of Shutter Function



Shutter operates at fast shutter speed.

- 1) At "A", "B", "M", setting-shutter operates at fast shutter speed.

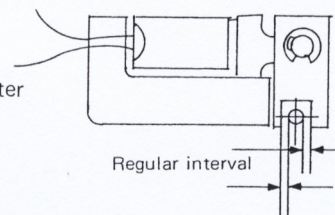
Cause: Shutter Magnet out of position.

Repair: As shown in diagram below adjust Mg iron guide pin to center position.

Cause: Magnetic attraction power insufficient.

(At 3–3.5V the magnet should function normally).

Repair: Change magnet



- 2) Shutter trips simultaneously with film winding. (Body grounded).
Cause: During film winding one of the switches is causing the body to be grounded.
Repair: Use storage oscilloscope (for testing) CH-1
(1) Check for grounding of body or short circuit. Check switches for short circuit to ground. Check minus (—) contact in battery chamber for short circuit to ground with camera body. Check wiring insulation.

- 3) Shutter trips simultaneously with film winding (body is not grounded).

Cause: Wiring incorrectly connected.

Repair: Check voltage with tester.

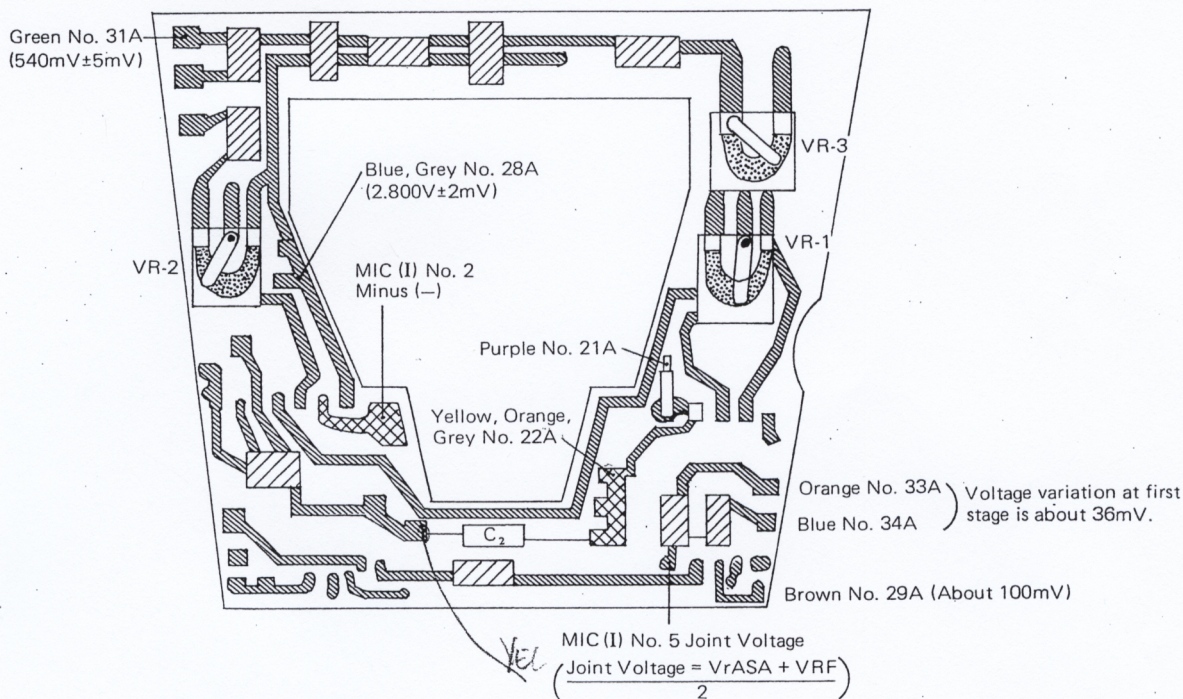
1 Respective voltage checkpoints.

1. Preparation before checking.

- Set ASA to 100.
- Insert dummy battery and cock shutter.
- Turn "ON" exposure preview switch.

* Make sure voltage is 5 volts.

2 Voltage checkpoints.



3 Adjustment method

- Set digital multi-meter at direct current voltage (VDC).

Connect black lead wire (—) to MIC (I) No. 2 (—) terminal. With red lead wire (+) check voltages by connecting it to the respective terminals.

- Stabilized voltage output

- | | |
|---|---------------------------------|
| Terminal No. 28A (Blue, Grey lead wires) | 2.8V±2mV adjust VR-2 |
| b) Terminal No. 31A (Green lead wire) | 540mV±5mV adjust VR-3 |
| c) Terminal No. 29A (Brown lead wire) | About 100mV adjust VR-6 |
| d) Terminal HIC (I) No. 5 (Aperture, ASA joint voltage) | About 330mV |
| | (at ASA 100 with open aperture) |

Terminal No. 33A (Orange lead wire) aperture resistance voltage.

Terminal No. 34A (Blue lead wire) ASA resistance voltage

The respective voltage variation of the above at this first stage should be about 36mV. Make sure there is a variation, at this stage, of about 18mV at the joint voltage (HIC (I) No. 5 terminal).

e) Offset voltage Adjust VR-1

Terminals No. 21A, 22A.

The checking is performed by utilising b) Terminal No. 31A with the voltage $540\text{mV} \pm 5\text{mV}$.

First, attach a lead wire to terminal No. 31A and connect it to terminal No. 21A (without removing the purple lead wire). Then, check voltage alternately at terminals No. 31A and No. 22A, at the same time, adjust VR-1 so that voltage at terminal No. 22A is +5mV higher than at terminal No. 31A.

- 4) Exposure preview normal, when shutter is tripped the shutter operates without making an exposure and the L. E. D display also does not indicate the shutter speed of the exposure.

Cause: Switch (SW-7) does not turn the amplifier to "ON".

Repair: Adjust SW-7 contact points. (Attention should be paid to contact points pressure and timing of the switch action.)

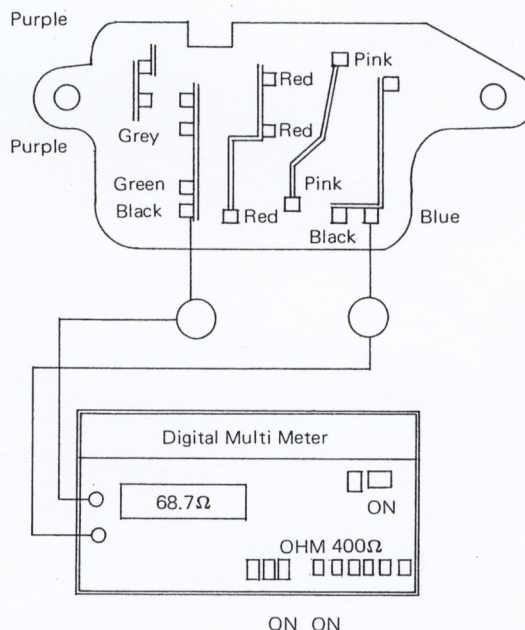
Shutter does not operate.

- 1) Shutter does not operate (Similar to short circuit situation).

Cause: Diode defective on diode circuit board or faulty soldering of connections.

Repair: Check with tester, if necessary change diode or re-solder properly the faulty soldered connection.

- 1) If shutter operates normally when camera base plate is removed; excessive solder on diode circuit board is touching the base plate causing a short circuit.
- 2) Check wiring and connections are properly soldered.



Shutter trips prematurely or at fast speed.

- 1) Shutter trips when film is advanced.

Cause: Excessive solder on diode circuit board is touching the base plate causing a short circuit.

Repair: Remove excessive solder and make sure the soldered parts do not touch the base plate. (131-A-030-03).

- 2) With the mirror in the up position the shutter trips at a faster speed than the selected speed.

Magnet adjustment defect. (131-A-030-01).

Repair: Adjust magnet. If adjustment impossible change magnet.

- 3) Release magnet inactive.

Cause: RL(1) is obstructed by the hook claw.

Repair: Make adjustment.

- 4) Shutter trips at faster speed than selected speed.

Cause: Shutter adjustment defect.

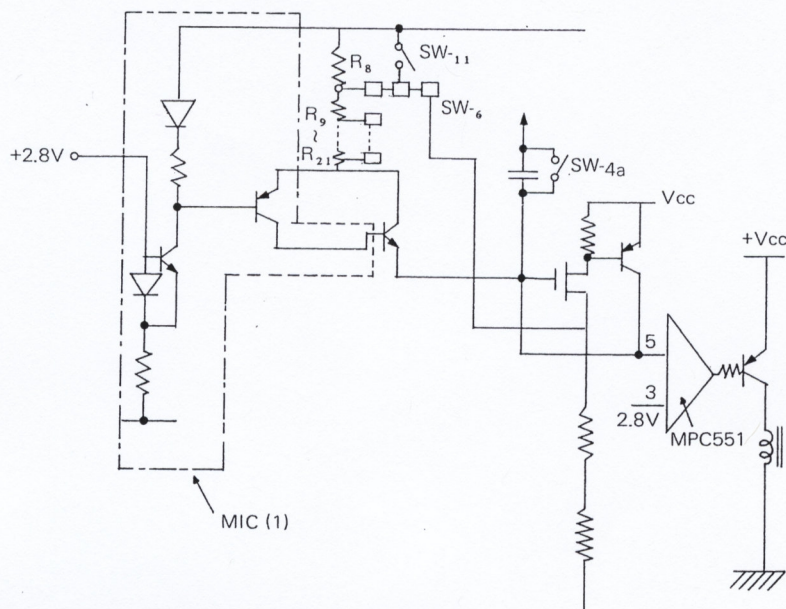
Repair: Adjust primary and secondary curtains traversing speeds ($11.6 \sim 11.7 \mu/\text{sec.}$).

For 1/2000 sec. adjust by turning adjusting screw of trigger contact. (Tiny (—) screw near

Manual speed circuit.

When the shutter is tripped the mirror flips up and SW-11 is turned "ON" making connections to the various resistors for the respective shutter speeds then on to Vcc from where the electrical current flows which is amplified by the Darlington pair of transistors to charge the capacitor. The time taken to charge the capacitor is the manual shutter speed.

- * The Darlington pair of transistors increase the amplification of the current.



The standard manual speeds shown in Fig. 1 should be followed.

Note: Checking 1/1000, 1/2000 sec. several times the respective shutter speeds should be within the limits, over 70% of the number of times checked.

If 30% of the number of times checked is outside the standard limit:—

1/1000 should be within 1.33~0.72 μ /sec.

1/2000 should be within 0.69~0.34 μ /sec.

Uneven exposure.

The difference of the exposure time at mid-point and one point at the left or right of the picture plane should be within $\pm 25\%$.

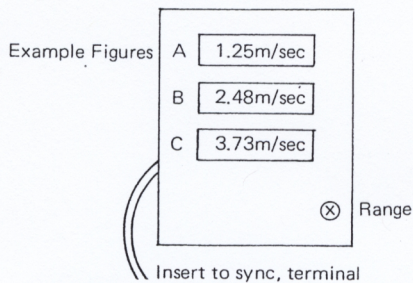
The difference of the fast and slow exposure time at 2 points left and right of the picture plane should be within $\pm 35\%$.

MANUAL EXPOSURE TIME

		Within Limit		
		Standard Figures	+	-
4 sec.	$\pm 10\%$	4000	4400	3600
2		2000	2200	1800
1/1		1000	1100	900
1/2		500	550	450
1/4		250	275	225
1/8		125	137.5	112.5
1/15		62.5	68.80	56.25
1/30		31.25	34.40	28.13
1/60	$(+0.14 \text{ EV} \text{ } -0.15 \text{ EV})$	15.63	17.20	14.06
1/125		7.81	8.60	7.03
1/250	$\pm 15\%$	3.91	4.50	3.32
1/500		1.95	2.25	1.66
1/1000	$+35, -25\%$ $(\pm 0.45 \text{ EV})$	0.98	1.33	0.72
1/2000	$+42, -29\%$ $(\pm 0.5 \text{ EV})$	0.49	0.69	0.34

Shutter remains open and long time.

- 1) Shutter remains open at 1/4 sec.
Cause: Sliding contact out of position
Repair: Adjust to correct position and check contact pressure.
- 2) Shutter remains open at LV.4
Cause: Preamplifier defect
Repair: Change Preamplifier
- 3) Long Time 4 secs. operates to 8 secs.
Cause: Main Amplifier defect
Repair: Change Main Amplifier.
- 4) Delay in synchro time lag
Cause: Adjustment defect
Repair: Adjust by changing gear engagement position of primary curtain gear and one revolution control gear.



A < B = Over 1.00m/sec
B = Sync. value
C = A + B (Instrument error)
The contact efficiency should be over 70%
for A > B or A + B

* Turning clockwise a tooth of the one revolution control gear will be about -0.3m/sec.

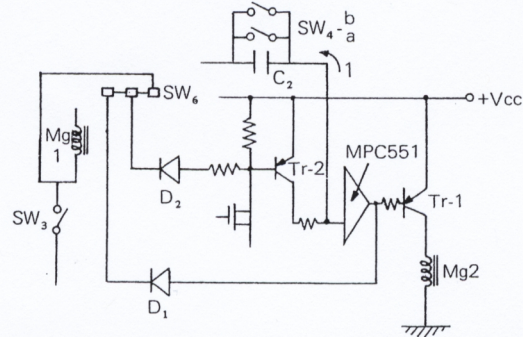
Shutter remains open.

- 1) On "Manual" below certain shutter speeds the shutter remains open.
Cause: Defective resistor in switching amplifier. Loose connections of resistor leads or open circuit in printed circuit.
Repair: Check each resistor lead connections. If open circuit is found in printed circuit change switching amplifier.
- 2) Shutter remains open under low light conditions.
Cause: Chattering of Switch (SW-7).
Repair: Adjust contact points with the aid of storage oscilloscope.
- 3) At 1/2000 sec shutter operates at a faster speed.
Cause: Faulty adjustment.
Repair: Re-adjust (See A-030-04).
- 4) Shutter at 1/125 sec. and under operates at a faster speed.
Cause: Timing of Mirror UP Switch incorrect.
Repair: Adjust timing. (See appendix — Adjusting with the use of the Memory).
- 5) Shutter at 1/2000 sec. is fast, 1/500~1/125 sec. are slow.
Cause: Defect in mirror box assembly.
Repair: Change complete Mirror Box.
- 6) Cause: RL(1) is obstructed by SP hook.
Repair: Make adjustment.
- 7) Shutter does not operate at "Manual".
Cause: Timing of Mirror UP Switch incorrect.
Repair: Make adjustment.
- 8) At 1/2000 sec. with mirror in locked position the shutter speed is slow.
Cause: Defect in shutter magnet adjustment.
Repair: Make adjustment.
- 9) At 1/125 sec. and under the shutter operates at one constant speed without change.
Cause: Memory switch breakdown.
Repair: Change Memory switch.

"B" circuitry.

When the Magnetic Release SW-3 is turned "ON" the electrical current flows from + Vcc in the following order E-B of Tr-1, D1, SW-3, E-C of Tr-1 turns "ON" and Mg-2 is in hold position to keep the shutter open. Similarly the current also flows to E-B of Tr-2. In this case, as the bias current is high the collector current would be saturated to about the same current.

When SW-3 is turned "OFF" the collector current changes the capacitor (C2) in an instant and turning "OFF" Tr-1 which turns "OFF" Mg-2 and closes the shutter.



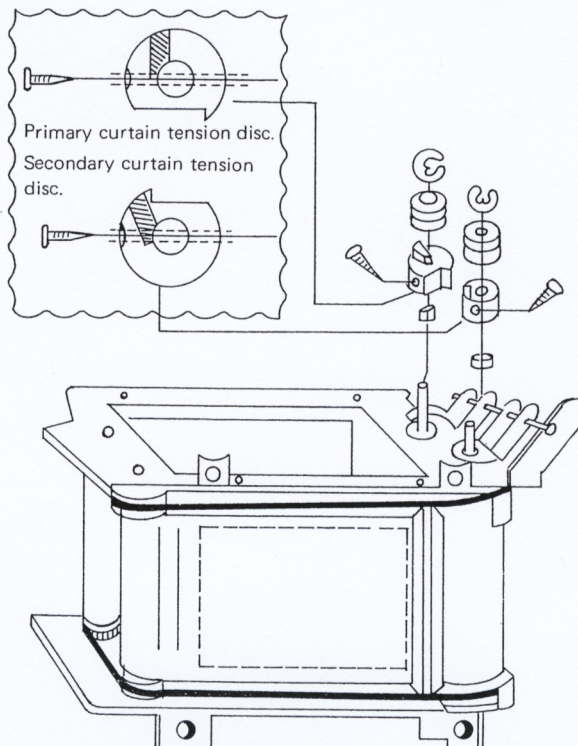
In the regular SLR cameras the shutter curtains are assembled to the camera body. Whereas, with the Contax RTS a new method is incorporated by assembling them to the mirror box, and then the Shutter Base Plate Sub Assembly and Shutter Base Plate Lower Sub Assembly are assembled.

Shutter curtain position, curtain speed, etc.; and all shutter adjustments are possible at the mirror box assembly. The starting position for the primary curtain would be A, and B for the secondary curtain. At first they will be overlapping 3-4 mm and when the shutter is charged the space width between the two curtains should be under 0~0.3 mm and when the shutter is charged the space width between the two curtains should be under 0~0.3 mm and they should not be overlapping.

The mirror box should be assembled parallel to the body and adjustments be made with the mirror box setting screws.

Place primary curtain at "A" position. Wind primary curtain drum until curtain string is drawn taut, then assemble primary curtain tension disc from the (inner) left hand side by turning the primary curtain drum to the left or right to align with the retaining screw hole.

With secondary curtain at "B" position follow similar procedure as above.



1. Electro magnet tension hook

When the shutter release is depressed the electric current is turned "ON" and the release magnet is activated, and electrical switch (SW-7) turns "ON" the shutter circuit, simultaneously the electro magnet tension hook is also activated.

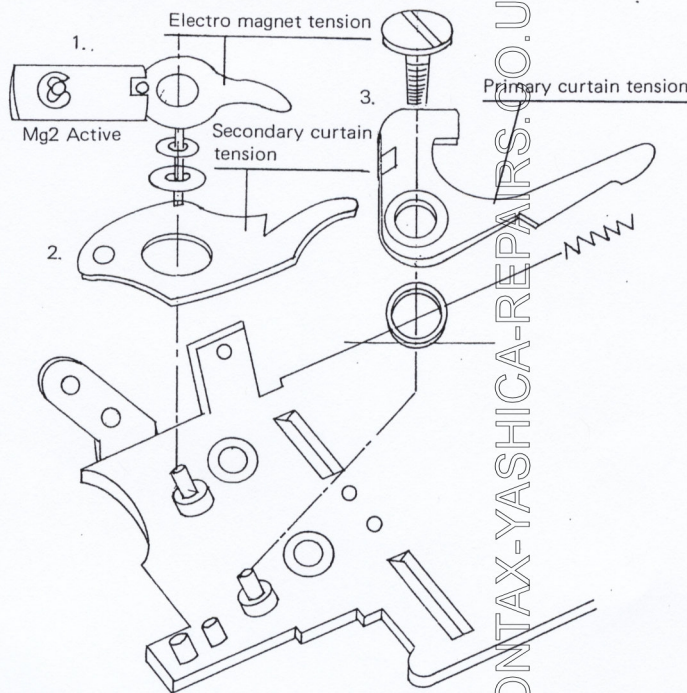
The secondary curtain tension disc is held stationary by the electro magnet tension hook.

2. The function of the secondary curtain tension at the time of complete winding.

At the time of complete winding the shutter circuit is turned "OFF" and the electro magnet tension hook is inactive. It is for this reason the tension hook mechanism holds the secondary curtain tension stationary.

3. Primary curtain tension hook.

At the time of complete winding the primary curtain tension disc is held stationary.

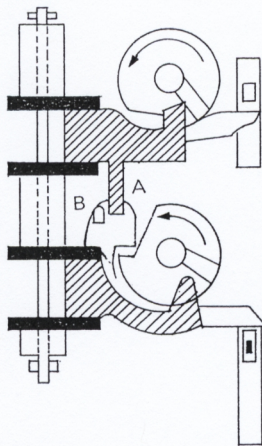


1/2000 sec. is inconsistent, with mirror locked the shutter speed is fast or slow.

1. With the mirror locked the speed should be generally under 0.1 μ s but a big change takes place.
2. Inconsistent shutter curtain speed.
3. The shutter curtain speed is inconsistent.

Countermeasure:

1. Rivet on movable plate of shutter Mg is loose or the assembly is out of position.
2. Roller not operating smoothly. Shaft is clogged
3. Primary curtain movement inconsistent because primary curtain control gear is not operating smoothly.



Winding and Shutter inoperative.

Due to an electrical malfunction the shutter magnet releases the secondary curtain leaving the primary curtain in the cocked position thus causing the shutter to become inoperative. Forceful winding, at this stage will cause overcharging and damage to the curtains. Apply some pressure to secondary limit lever part "A" which will compel primary curtain fixing hook assembly to release the cocked primary curtain.

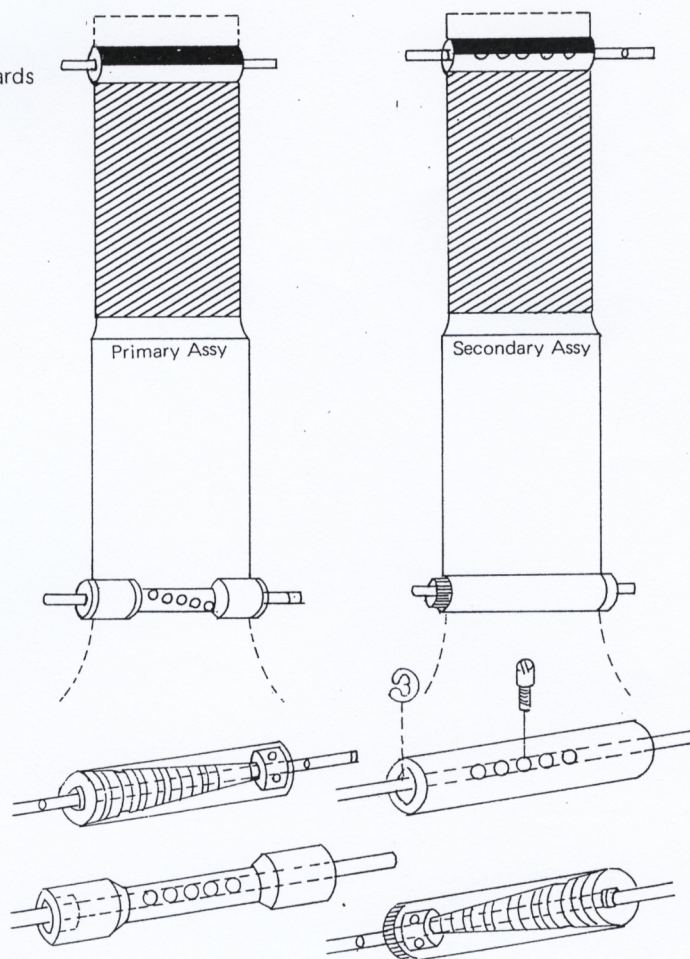
Shutter curtain assembly.

With a special jig the primary and secondary curtains are strung to maintain uniformity of dimensions and parallelism.

String is used instead of the conventional ribbons for better efficiency and compactness.

Winding the string

The string is wound from outside inwards which prevents overlapping.



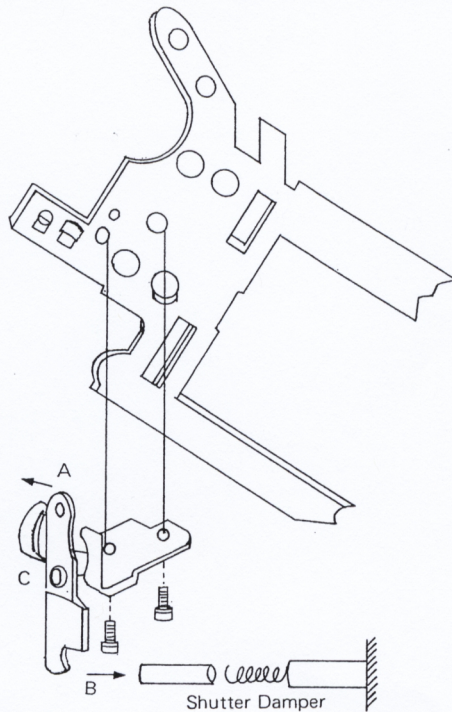
Shutter bounce prevention supplementary plate.

The shutter curtain speed is 12 μ /secs. But at the end of the travel bounce occurs (When the strings of the primary and secondary curtains are wound to the SP shaft and there is a backlash.)

The bounce should not occur within the aperture. To prevent this a shutter bounce prevention supplementary plate is installed.

With the travel of the primary curtain the primary curtain tension disc and the rotation control guide collide.

The retaining hole for the limit lever shaft is part "A" of the shutter supplementary plate. When primary curtain hook circle plate and limit lever collides part "A" is pushed in the direction of the arrow. On the other hand, the lower part "C" acting as the axle pushes part "B" in the direction of the shutter damper and the spring in the cylinder assembly counteracts the force and controls the backlash or bounce.



Curtain shutter bounce

1. Primary curtain shutter bounce occurs at 1/30 or 1/60 sec.

Countermeasure:

1. Tighten any play in primary curtain limit lever. Especially, lateral play.
2. Replace shutter damper spring if it is weak.
3. Shutter piston and cylinder of shutter damper action should be smooth.

Movement of curtain limit lever.

When winding is commenced the primary and secondary limit levers the tips of which travel upwards along the grooves of the turn limit guides and stops after reaching the top. The respective limit levers should not slip out of the grooves.

When the shutter is released, at first, the primary curtain travels and the primary curtain limit lever slides down along the grooves from top to bottom. It stops when it comes into contact with the protruding part of the primary curtain hook circle plate. When the secondary curtain begins to travel the secondary curtain limit lever follows the same pattern as above.

Shutter curtain slackness.

1. Curtain metal clip is bent
2. Curtain string out of position
3. Curtain string is overlapping.

Countermeasure:-

1. Secondary curtain string gets out of position on spring drum due to improper attachment of string to curtain causing the string to overlap or wind on the shaft.
The string should never overlap during winding.
2. Primary curtain string gets out of position due to excessive space between winding side roller and string guide plate, which should be within 0.2—0.3mm. Adjust position of string guide plate.

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